

OY 301 GCCCACCACCTCTCTGATGCTGAGAAACGTAAGCTCTGTGACTTCCCTTAAAGA 360
 Db 1667 GCCCACCACCTCTCTGATGCTGAGAAACGTAAGCTCTGTGACTTCCCTTAAAGA 1926
 OY 361 CAATGTTGTGTAATCTTTGAGACACACCGAAGACCTTATACGTGATCTTTACCC 420
 Db 1927 CAATGTTGTGTAATCTTTGAGACACACCGAAGACCTTATACGTGATCTTTACCC 1986
 OY 421 CTTTCACTCTGCTTCTTCTTATGCTGCTATTCATTGAAGTGAAGAAAAAGATGACT 480
 Db 1987 CTTTCACTCTGCTTCTTCTTATGCTGCTT---CATGAATGATGAGAAAAAGATGACT 2043
 OY 481 CAGTTACAAAACACACCGACGACAA 508
 Db 2044 CAGTTAAGCACCACCAAAAAA 2071
 RESULT 4
 ID ACC50220 standard; cDNA; 2412 BP.
 AC ACC50220;
 XX
 DT 12-JUN-2003 (first entry)
 DE Breast cancer associated cDNA sequence SEQ ID NO:283.
 KM Human; breast cancer; cytostatic; gene therapy; gene; ss.
 XX Homo sapiens.
 OS
 XX WO2003004989-A2.
 PN 16-JAN-2003.
 PD
 XX
 PF 21-JUN-2002; 2002WO-US19669.
 XX
 PR 21-JUN-2001; 2001US-299887P.
 PR 27-JUN-2001; 2001US-301572P.
 PR 18-JUL-2001; 2001US-306501P.
 PR 25-SEP-2001; 2001US-325002P.
 PR 05-MAR-2002; 2002US-362585P.
 PR 14-MAY-2002; 2002US-380391P.
 PA (MILL-) MILLENIUM PHARM INC.
 XX
 PI Lillie J, Gannavarapu M, Glatt K, Hoersch S, Kamatkar S, Mertens M;
 PI Monahan JE, Myer V, Wang Y, Xu Y, Zhao X, Meyers RE, Bast RC;
 PI Hortobagyi GN, Pusztai L, Meric F, Sahlin A, Mills GB;
 XX
 DR WPI: 2003-210381/20.
 DR P-PSDB; ABR47524.
 XX
 PT Breast cancer diagnosis or treatment by comparing the level of
 PT expression of a marker in a patient sample with that in the control
 PT non-breast cancer sample
 XX
 PS Claim 1: SEQ ID 283; 128bp; English.
 XX
 CC The present invention describes a method for assessing whether a patient
 CC is afflicted with breast cancer. The method comprises comparing the level
 CC of expression of a marker (gene/polypeptide see ACC50076 to ACC50334 and
 CC ABR47386 to ABR47632) in a patient sample and the normal level of
 CC expression of the marker in a control non-breast cancer sample, where a
 CC significant increase in the level of expression of the marker in the
 CC patient sample and the normal level is an indication that the patient is
 CC afflicted with breast cancer. The breast cancer associated sequences
 CC from the present invention have cytostatic activities and can be used in
 CC gene therapy. The method is useful for diagnosing and treating breast
 CC cancer.
 CC B. The sequence data for this patent did not form part of the printed
 CC publication, but was obtained in electronic format directly from WIPO
 CC http://ip.int/pub/published_pct_sequences.

XX Sequence 2412 BP; 600 A; 696 C; 680 G; 436 T; 0 other;
 SQ
 Query Match 62.5%; Score 424; DB 25; Length 2412;
 Best Local Similarity 93.7%; Pred. No. 2,4e-126;
 Matches 476; Conservative 0; Mismatches 25; Indels 7; Gaps 3;
 OY 1 CTTGCTGACAGAGAAACCCCAACGGAGAGAAAGAAATGGCCACACCTTGGCGAA 60
 Db 1903 CTTGCTGACAGAGAAACCCCAACGGAGAGAAAGAAATGGCCACACCTTGGCGAA 1962
 OY 61 ACCTGTGTGGCCACACGACTCTTAACGGGACAGAGACAGAGACAGACAGCC--TGC 120
 Db 1963 ACCTGTGTGGCCACACGACTCTTAACGGGACAGAGACAGAGACAGACAGCC--TGC 2019
 OY 121 ACTGTTTCCCTCAGACACAGCAATCTCTCCCTATTGGCTGTGCTTCCACTATA 180
 Db 2020 ACTGTTTCCCTCAGACACAGCAATCTCTCCCTATTGGCTGTGCTTCCACTATA 2078
 OY 181 CACAGTCACCGTCCCAATGAGAAACAAGAGAGACACCCCTCCACATGAGACTCCACCTGC 240
 Db 2079 CACAGTCACCGTCCCAATGAGAAACAAGAGAGACACCCCTCCACATGAGACTCCACCTGC 2138
 OY 241 AAGTGAACAGCGACATTCAGTCTGCACTGCTGACCTGGGTTTACTGATGACTCTGGCT 300
 Db 2139 AAGTGAACAGCGACATTCAGTCTGCACTGCTGACCTGGGTTTACTGATGACTCTGGCT 2198
 OY 301 GCCCACCACCTCTCTGATGCTGAGAAACGTAAGCTGTGACTTCCCTTAAAGA 360
 Db 2199 GCCCACCACCTCTCTGATGCTGAGAAACGTAAGCTGTGACTTCCCTTAAAGA 2258
 OY 361 CAATGTTGTGTAATCTTTGAGACACACCGAAGACCTTATACGTGATCTTTACCC 420
 Db 2259 CAATGTTGTGTAATCTTTGAGACACACCGAAGACCTTATACGTGATCTTTACCC 2318
 OY 421 CTTTCACTCTGCTTCTTCTTATGCTGCTATTCATTGAAGTGAAGAAAAAGATGACT 480
 Db 2319 CTTTCACTCTGCTTCTTCTTATGCTGCTT---CATGAATGATGAGAAAAAGATGACT 2375
 OY 481 CAGTTACAAAACACCGACGACAA 508
 Db 2376 CAGTTAAGCACCACCAAAAAA 2403
 RESULT 5
 ABR13359
 ID ABR13359 standard; DNA; 3009 BP.
 XX
 AC ABR13359;
 XX
 DT 30-JAN-2003 (first entry)
 DE Breast specific related polynucleotide SEQ ID NO 74.
 XX
 KW Cytostatic; BSP-agonist; BSP-antagonist; vaccine; gene therapy; cancer;
 KW metastatic; breast cancer; breast specific; human; ds.
 XX
 OS Homo sapiens.
 XX
 PN WO200277232-A2.
 PD 03-OCT-2002.
 XX
 PF 21-NOV-2001; 2001WO-US43815.
 XX
 PR 22-NOV-2000; 2000US-252509P.
 PA (DIAD-) DIADEXUS INC.
 XX
 PI Salceda S, Machina RA, Recipon H, Pluta J, Sun Y, Liu C;
 DR WPI: 2003-018927/01.

DB 1685 AAGCCCTGGGAAAGCCCGGAGAGATCAACTCCCGATATTTCTCCGAGTGCT 1744
QY 521 G1YtysleuG1YtysArgProG1uAspProaAsn1aAspProSerSerG1uAla1ysAla 540
DB 1745 GGGAACCTTGGCAGAGACAGAGAGACCAATGAGACCTTCAAGTGAAGCCAGGCA 1804
QY 541 MetAlaValProTyrLeuLeuArgArgPheSerAsnSerLeu1ysSerG1u1ys 560
DB 1805 ATGGCTGGCCCTCTCTCTAGAGAAAGTCAAGTATTCCTGAAAGTCAAGGTAAA 1864
QY 561 AspAspSerPheAspArgLysSerValTyrArgG1ysSerLeuThrG1uArgAspPro 580
DB 1865 GATGATGATCTTTTTCATCGGAATCAGTGTACGAGGCTGCTGACACAGAGAAACCC 1924
QY 581 AsnAlaArgLysG1ysMetAlaSerHisThrPheAla1ysProValAla1HisG1uSer 600
DB 1925 AACGGAGAGAAAGAGATGGCCAGCCACACTTCGGGAACCTGTGTGGCCACAGTCC 1984
RESULT 3
US-09-779-308-1
; Sequence 1, Application US/09779308
; Patent No. US20020150972A1
; GENERAL INFORMATION:
; APPLICANT: Mary Faris
; APPLICANT: Daniel E.H. Afar
; APPLICANT: Pia M. Chailita-Elid
; APPLICANT: Rene S. Hubert
; APPLICANT: Elana Levin
; APPLICANT: Steve Chappell Mitchell
; APPLICANT: Aya Jakobovits
; TITLE OF INVENTION: 34P3D7: A TISSUE SPECIFIC PROTEIN
; TITLE OF INVENTION: HIGHLY EXPRESSED IN PROSTATE CANCER
; FILE REFERENCE: 129,405U1
; CURRENT APPLICATION NUMBER: US/09/779,308
; CURRENT FILING DATE: 2001-02-08
; PRIOR APPLICATION NUMBER: 60/181,020
; PRIOR FILING DATE: 2000-02-08
; NUMBER OF SEQ ID NOS: 718
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 2198
; TYPE: DNA
; ORGANISM: Homo Sapiens
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (175)...(1773)
US-09-779-308-1
Alignment Scores:
Pred. No.: 3,966-237 Length: 2198
Score: 2685.00 Matches: 530
Percent Similarity: 88.50% Conservative: 1
Best Local Similarity: 88.33% Mismatches: 1
Query Match: 86.70% Indels: 68
DB: 10 Gaps: 2
US-09-995-494-96 (1-600) x US-09-779-308-1 (1-2198)
QY 1 MetG1YtysLysLeuAspLeuSerLysLeuThrAspG1uAlaG1uAla1HisValLeuG1u 20
DB 175 ATGGGAGAAAGACAGATCTTCCAGCTCACTGATGAAGAGCCGACAGCTGTGAA 234
QY 21 ValValG1uArgAspPheAspLeuArgArgLysG1uG1uArgLeuG1uAlaLeuLys 40
DB 235 GTTGTTCACAGAGATTTTTCAGCTCCGAGGAAAGAGAGAAAGCGCTGAGAGCTTGAAG 294
QY 41 G1YtysIleLysLysG1uSerSerLysArgG1uLeuLeuSerAspThrAla1HisLeuAsn 60
DB 295 GGCAGAGATTAAAGAGAAAGCTCCAGAGGAGAGCTGTTCCGACACTGCCATCTGAAAC 354
QY 61 G1uThrHisCysAlaArgCysLeuG1uProTyrG1uLeuLeuValAsnSerLysArgG1u 80
DB 355 GAGACCCCTGCGCCGCTGCTGCTGAGCCCTTACCAAGCTGCTGTGTAATAGCAAAAGGCGAG 414

QY 81 CysLeuG1uCysG1yleuPheThrCysLysSerCysG1yArgVal1HisProG1uG1uG1u 100
DB 415 TGCTGGAGATGGCCCTCTTACCTGGCAAAAGCTGTGGCCGCGCTCCACCCGAGAGAGAG 474
QY 101 G1YtR1IleCysAspProCysHisLeuAlaArgValValLysIleG1ysSerLeuG1uTrp 120
DB 475 GGGTGAATCTGTGACCCCTGCGCATCTGGCCAGAGTCTGGAGAGATGGCTCTACTGAGTGG 534
QY 121 TyrTyrG1uHisValLysAlaArgPheLysArgPheG1ysSerAla1ysVal1IleArgSer 140
DB 535 TACTATGAGCATGTGAAAGCCCGCTCAAGAGGTTCGGAATGCGCAAGTATCCGGTCC 594
QY 141 LeuHisG1yArgLeuG1uG1yAlaG1yProG1uLeuIleSerG1uG1uArgSerG1y 160
DB 595 CTCACAGGGGCGCGCGAGAGGCTGGAGCTGGCCCTGACTGATGTGAAGAGAGAGTGA 654
QY 161 AspSerAspG1uThrAspG1uAspG1yLeuProG1ySerG1uAlaG1uAlaG1uAlaG1u 180
DB 655 GACAGCGACAGACAGATGAGAGATGAGAAACCTGGCTCAGAGGCCAGGCCAGGCCAG 714
QY 181 ProPheG1ysSerLysLysArgLeuLeuSerValHisAspPheAspPheG1uLysP 200
DB 715 CCTTTGGCAGCAAA----- 729
QY 201 SerAspAspSerThrG1uProG1uG1yHisSerLeuHisLeuSerSerValProG1uAla 220
DB 729 ----- 729
QY 221 ArgAspSerProG1uSerLeuThrAspG1uSerCysSerG1uLysAla1HisProHisLys 240
DB 730 -----TCCCTCAGAGATGAGTCCGCTCAGAGAGAGCCCTCAGAG 774
QY 241 AlaG1uG1yLeuG1uG1uAlaAspThrG1yAlaSerG1yCysHisSerHisProG1uG1u 260
DB 775 GCTAGAGGCTGGAGAGAGCTGATACGTGGGCTCTGGGTCTCCACTCCATCCGAGAGAG 834
QY 261 G1uProThrSerLysSerProSerArgHisG1yAlaLeuAlaG1uLeuCysProProG1y 280
DB 835 CAGCCGACAGACATCTCAGCTCCAGACAGGCCCTGGCTGAGCTGTGCCCGCTGCA 894
QY 281 G1ysSerHisArgMetAlaLeuG1yThrAlaAlaAlaLeuG1ysSerAsnVal1IleArgAsn 300
DB 895 GGTCTCCACAGAGATGGCCCTGGAGCTGCTCTGCTCAGCTGGGTGATGATCAGAGAT 954
QY 301 G1uG1uLeuProLeuG1uTyrLeuAlaAspValAspThrSerAspG1uG1uSerLysArg 320
DB 955 GAGCAGCTGCCCTGCGACTTGTGGCGATGTGACACCTGTGATGAGAGAGATCCGG 1014
QY 321 AlaHisValMetAlaSerHisHisSerLysArgArgG1yArgAlaSerSerG1uSerG1u 340
DB 1015 GCTCAGCTGATGAGGCTCCACCATTCACAGAGGAGAGCGGCGGTCTGTGAGAGTCAAG 1074
QY 341 IlePheG1uLeuAsnLysArgIleSerAlaValG1uLysLeuLeuThrTyrLeuG1uAsn 360
DB 1074 ----- 1074
QY 361 ThrValValProProLeuAla1ysG1yLeuG1yAlaG1yValArgThrG1uAlaAspVal 380
DB 1075 -----GCTCTAGGTCTGTGAGCGCGCCAGAGAGCCGAGTGA 1110
QY 381 G1uG1uG1uAlaLeuArgArgLysLeuG1uG1uLeuThrSerAsnValSerAspG1uG1u 400
DB 1111 GAGAGAGAGGCGCTGAGAGAGAGAGCTGAGAGAGTGCACAGCAAGTACAGACAGAGAG 1170
QY 401 ThrSerSerG1uG1uG1uG1uAlaLysAspG1uLysAlaG1uProAsnArgAspLysSer 420
DB 1171 ACCCTGCTCCAGAGAGAGAGTCCAGAGAGCAAAAGAGAGAGCCCAAGAGGACAAATCA 1230
QY 421 ValG1yProLeuProG1uAlaAspProG1uValG1yThrAla1HisG1uThrAsnArg 440
DB 1231 GTTGGGCTCTCCCGCCAGGCGAGCCGAGAGTGGGACGGGCTGCCATCAACCAACAGCA 1290

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QY 441 GlnGluLysSerProGlnAspProGlnAspProValGlnTyrAsnArgThrAspGlu 460
Db 1291 CAGGAAAAAGCCCCCGAGACCCCTGGGACCCCTCCAGTCAACAGAGACACAGATGAG 1350
QY 461 GluLeuSerGluLeuGlnAspArgValAlaValThrAlaSerGluValGlnGlnAlaGlu 480
Db 1351 GAGGTGTGACAGCTGGAGGACAGAGTGCAGTGCAGGCTCAGAGAGTCCAGCAGCAGAG 1410
QY 481 SerGluValSerAspIleGluSerArgIleAlaAlaLeuArgAlaIleGluLeuThrVal 500
Db 1411 AGCAGAGTTTCAGACATTGAATCCAGATTCACACCTCGAGGCGCGAGGCTCAGCGTG 1470
QY 501 LysProSerGlyLysProArgArgLysSerAsnLeuProIlePheLeuProArgValAla 520
Db 1471 AAGCCCTGGGAAAGCCCCCGAGAGAGTCAAACTCCGATATTTCTCCCTCGAGTGCT 1530
QY 521 GlyLysLeuGlyLysArgProGlnAspProAsnAlaAspProSerSerGluAlaLysAla 540
Db 1531 GGGAACTTGGCAAGAGACCGAGAGACCCAAATGCAAGACCTTCAAGTGAAGCCAAAGCA 1590
QY 541 MetaLysAlaProTyrLeuLeuArgArgLysPheSerAsnSerLeuLysSerGlnGlyLys 560
Db 1591 ATGGCTGTGCCCTTCTTCTTGAGAGAAAGTTCAGTATTCCTCGAAAGTCAAGGTAA 1650
QY 561 AspAspAspSerPheAspArgLysSerValTyrArgLysLeuThrGlnAlaArgAsnPro 580
Db 1651 GATATGATTTCTTTGATCGGAAATCAGTGTACGAGGCTCGTGACACAGAGAAACCCC 1710
QY 581 AsnAlaArgLysGlyMetAlaSerHisThrPheAlaLysProValAlaIleHisGlnSer 600
Db 1711 AACCGAGGAAGAGATGGCCAGCCACACCTTCGGAACCTGTGTGGCCACACAGTCC 1770

RESULT 4
US-10-106-698-304
; Sequence 304, Application US/10106698
; Publication No. US20030109690A1
; GENERAL INFORMATION:
; APPLICANT: Ruben et al.
; TITLE OF INVENTION: Colon and Colon Cancer Associated Polynucleotides and Polypeptide
; FILE REFERENCE: PA005P1
; CURRENT APPLICATION NUMBER: US/10/106, 698
; PRIOR APPLICATION NUMBER: PCT/US00/26524
; PRIOR FILING DATE: 2000-09-28
; PRIOR APPLICATION NUMBER: US 60/157,137
; PRIOR FILING DATE: 1999-09-29
; PRIOR APPLICATION NUMBER: US 60/163,280
; PRIOR FILING DATE: 1999-11-03
; NUMBER OF SEQ ID NOS: 8564
; SOFTWARE: PatentIn Ver. 3.0
; SEQ ID NO 304
; LENGTH: 1257
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-106-698-304

Alignment Scores:
Pred. No.: 1,07e-109 Length: 1257
Score: 1295.00 Matches: 271
Percent Similarity: 88.89% Conservative: 1
Best Local Similarity: 88.56% Mismatches: 6
Query Match: 41.81% Indels: 30
DB: 14 Gaps: 1

US-09-995-494-96 (1-600) x US-10-106-698-304 (1-1257)
QY 295 SerAsnValIleArgAsnGlnGlnLeuProLeuGlnTyrLeuAlaAspValAspThrSer 314
Db 1 TCCAAATGTCATCAGGATGAGCAGCTGCCCTCAGACTTGGCCGATGGACACCTCT 60
QY 315 AspGlnGluSerIleArgAlaHisValMetAlaSerHisHisSerLysArgGlyArg 334
Db 61 GATGAGGAAGAGATCCGGGCTCAGTGATGGCTCCACCACTTCCAAAGCGAGAGCGCG 120

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QY 335 AlaSerSerGluSerGlnIlePheGlnLeuAsnLysArgIleSerAlaValGluCysLeu 354
Db 121 GCGTCTTCTGAGACTCAG----- 138
QY 355 LeuThrTyrLeuGlnGluAsnThrValValProProLeuAlaLysGlyLeuGlyValAla 374
Db 139 -----GGTCTAGGTGCTGRKKG 156
QY 375 ArgThrGluAlaAspValGlnGlnGlnAlaLeuArgArgLysLeuGlnGlnLeuThrSer 394
Db 157 CGCACGAGAGCCCGATGTAGAGAGAGAGGCCCTGAGAGGAAGCTGAGAGACTACCCAGC 216
QY 395 AsnValSerAspGlnGlnTyrSerSerGlnGlnGlnGlnAlaLysAspGluLysAlaGlu 414
Db 217 AACCTCAGTGCACCGAGACTCTCGAGAGAGAGAGTCCAGAGCAGAAAGAGCAGAG 276
QY 415 ProAsnArgAspLysSerValGlyProLeuProGlnAlaAspProGlnValGlyTyrAla 434
Db 277 CCCAAAGAGGCAAAATCAGTTGGGCTCTCCCGAGCGAGCCGAGAGT-GGCACGGCT 335
QY 435 AlaHisGlnThrAsnArgGlnGlnLysSerProGlnAspProGlnAspProValGlnTyr 454
Db 336 GCCCATCAAAACCAACAGACAGGAAAAAGCCCGAGACCTCGGGACCCGCTCAGATAC 395
QY 455 AsnArgThrThrAspGlnGlnLeuSerGlnLeuGlnAspArgValAlaValThrAlaSer 474
Db 396 AACGAGCCACAGATGAGAGCTGTCAAGCTGAGAGACAGAGTGGACGTACGCGCTCA 455
QY 475 GluValGlnGlnAlaGlnSerGluValSerAspIleGluSerArgIleAlaIleLeuArg 494
Db 456 GAAGTCCAGCAGGAGAGAGAGAGAGTTTCAGACATTGAATCCAGAGATTCKAGCCCTGAG 515
QY 495 AlaAlaGlyLeuThrValLysProSerGlyLysProArgArgLysSerAsnLeuProIle 514
Db 516 GCCGACAGGCTC-ACGCTGAAGCCCTCGGAAAGCCCGGAGGAAGTCAAACTCCGATA 574
QY 515 PheLeuProArgValAlaGlyLysLeuGlyLysArgProGlnAspProAsnAlaAspPro 534
Db 575 TTTCTCTCTGAGAGGCTGGGAAACCTGGCAAGAGACCAAGGCCAAATGCGAGACCT 634
QY 535 SerSerGlnAlaLysAlaMetAlaValProTyrLeuLeuArgArgLysPheSerAsnSer 554
Db 635 TCAAGTAGGSCCAAGCAATAGCTGCTCCCTATCTTTGAGAGAAAGATTCAGTAAATTC 694
QY 555 LeuLysSerGlnGlyLysAspAspAspSerPheAspArgLysSerValTyrArgGlySer 574
Db 695 CTGAAAAAGTCAAGGTAAAGATGATTTCTTGATCGAAATCAGTGTACCGAGGCTCG 754
QY 575 LeuThrGlnArgAsnProAsnAlaArgLysGlyMetAlaSerHisThrPheAlaLysPro 594
Db 755 CTGACACAGAGAAACCCCAAGCGGAGAGAAAGATGCGCACACACCTTCGGAAACT 814
QY 595 ValValAlaHisGlnSer 600
Db 815 GTGCTGGCCACCAAGTCC 832

RESULT 5
US-09-764-891-238
; Sequence 238, Application US/09764891
; Publication No. US20030077808A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
; FILE REFERENCE: PC006
; CURRENT APPLICATION NUMBER: US/09/764, 891
; PRIOR FILING DATE: 2001-01-17
; PRIOR APPLICATION data removed - consult PAM or file wrapper
; NUMBER OF SEQ ID NOS: 10231
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 238
; LENGTH: 762
; TYPE: DNA

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